

REMARKS

Claims 1-11, 13-15 and 17-20 are pending in this application. Claims 1-9, 19 and 20 are withdrawn from consideration. By this Amendment, claims 10, 11, 13-15, 17 and 18 are amended to overcome rejections under 35 U.S.C. §102(b) and §112, second paragraph. Claims 12 and 16 are canceled.

No new matter is added by this Amendment. Support for the language added to claims 10 and 14 can be found in, for example, original claims 12 and 16, respectively, and paragraph 25 of the specification.

I. Rejection Under 35 U.S.C. §112, second paragraph

Claims 12, 13 and 16-18 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. In particular, the Patent Office alleges that the language "range from...and..." is indefinite. Solely to expedite the prosecution of this application, claims 12, 13 and 16-18 have been amended to recite that the ranges are "from ...to..." or "between ... and..." as suggested by the Patent Office.

Applicants submit that this rejection is now moot. Reconsideration and withdrawal of the rejection are thus respectfully requested.

II. Rejection Under 35 U.S.C. §102(b)

A. Mori

Claims 10-18 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 4,243,621 ("Mori"). This rejection is respectfully traversed.

The Patent Office alleges that Mori teaches that the ratio of Si:SiC is about 18:100 and that the method steps are taught at column 13, lines 59-68. The Patent Office further alleges that Mori teaches the ratio of metal silicon powder to nonoxide ceramic powder as recited in claim 11, the particle size of the metal silicon powder and the nonoxide ceramic

powder as recited in claim 12, and a molding pressure as recited in claim 13. Applicants respectfully disagree that Mori teaches or suggests all of the recited features.

Claims 10 and 14, as amended, recite that the average particle size of each of the metal silicon powder and the nonoxide ceramic powder contained in the composition is in a range from 1 to 50 μm . Mori does not teach or suggest this particle size for each of the metal silicon powder and the nonoxide ceramic powder. Nowhere does Mori teach or suggest any particle size range for the metal silicon powder. Further, Mori teaches that 5 wt. % of the material powder is silicon powder having a particle size of 3-1 mm (3000-1000 μm), 40 wt. % of the material powder is silicon powder having a particle size of 1-0.25 mm (1000-250 μm), and 20 wt.% of the material powder is silicon powder having a particle size less than 0.25 mm (less than 250 μm). See Table 3 of Mori. Such ranges do not teach or suggest the required size range recited in claims 10 and 14.

Furthermore, Mori does not teach or suggest that the mixing ratio of the metal silicon powder and the nonoxide ceramic powder in the composition is between 25 parts or more and less than 45 parts of the metal silicon powder with respect to 100 parts of the total amount of the nonoxide ceramic powder as recited in claim 11, and that the mixing ratio of the metal silicon powder and the nonoxide ceramic powder in the composition is between 20 parts or more and less than 90 parts of the metal silicon powder with respect to 100 parts of the total amount of the nonoxide ceramic powder as recited in claim 15. As pointed out by the Patent Office, Mori teaches that the ratio of metal silicon powder to the total amount of the nonoxide powder is about 18:100. See Table 3 of Mori. This is outside the range recited in claims 11 and 15. As such, Applicants submit that Mori does not teach or suggest all of the features recited in claims 11 and 15.

Mori also does not teach or suggest subjecting the molded product to reaction sintering in an atmosphere and at a temperature range that allows nitriding for between two hours or more and less than 12 hours as recited in claims 10 and 14.

For the foregoing reasons, Applicants submit that Mori does not teach or suggest all of the features recited in claims 10, 11, 13-15, 17 and 18. Reconsideration and withdrawal of the rejection are thus respectfully requested.

B. Pompe

Claims 14-18 were rejected under 35 U.S.C. §102(b) as allegedly being anticipated by U.S. Patent No. 4,492,665 ("Pompe"). This rejection is respectfully traversed.

The Patent Office alleges that Pompe teaches the features recited in claims 14-18 at column 5, lines 14-45 and claim 3. Applicants respectfully disagree with this allegation. Although the Patent Office alleges that the particle size recited in claim 14 is taught by Pompe, Pompe merely teaches that the nonoxide ceramic powder has a mean grain size less than 0.1 μm . See column 5, line 26 of Pompe. This is clearly smaller than the range from 1 μm to 50 μm as recited in claim 14.

Furthermore, Pompe does not teach or suggest subjecting the molded product to reaction sintering in an atmosphere and at a temperature range that allows nitriding for between two hours or more and less than 12 hours as recited in claims 10 and 14.

For the foregoing reasons, Applicants submit that Pompe does not teach or suggest all of the features recited in claims 14, 15, 17 and 18. Reconsideration and withdrawal of the rejection are thus respectfully requested.

III. Rejoinder


Applicants submit that upon allowance of elected claims 1-11, 13-15 and 17-20, withdrawn claims 1-9, 19 and 20 should be rejoined and similarly allowed.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-11, 13-15 and 17-20 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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